

# **Draft CHESAPEAKE BAY TMDL**

**Restoring Delaware's waterways  
and Chesapeake Bay**

**Public Meeting  
Georgetown, Delaware  
October 11, 2010**

[www.epa.gov/chesapeakebaytmdl](http://www.epa.gov/chesapeakebaytmdl)

# Today's Agenda

## ➤ **EPA presents draft TMDL**

- Rich Batiuk, Chesapeake Bay Program Associate Director for Science
- Bob Koroncai, Chesapeake Bay TMDL Manager

## ➤ **Delaware presents WIP**

- Jennifer Volk, Delaware Department of Natural Resources and Environmental Control

## ➤ **Question & Answer**

## ➤ **More information**

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# First...The Bottom Line

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# Lack of progress triggered TMDL



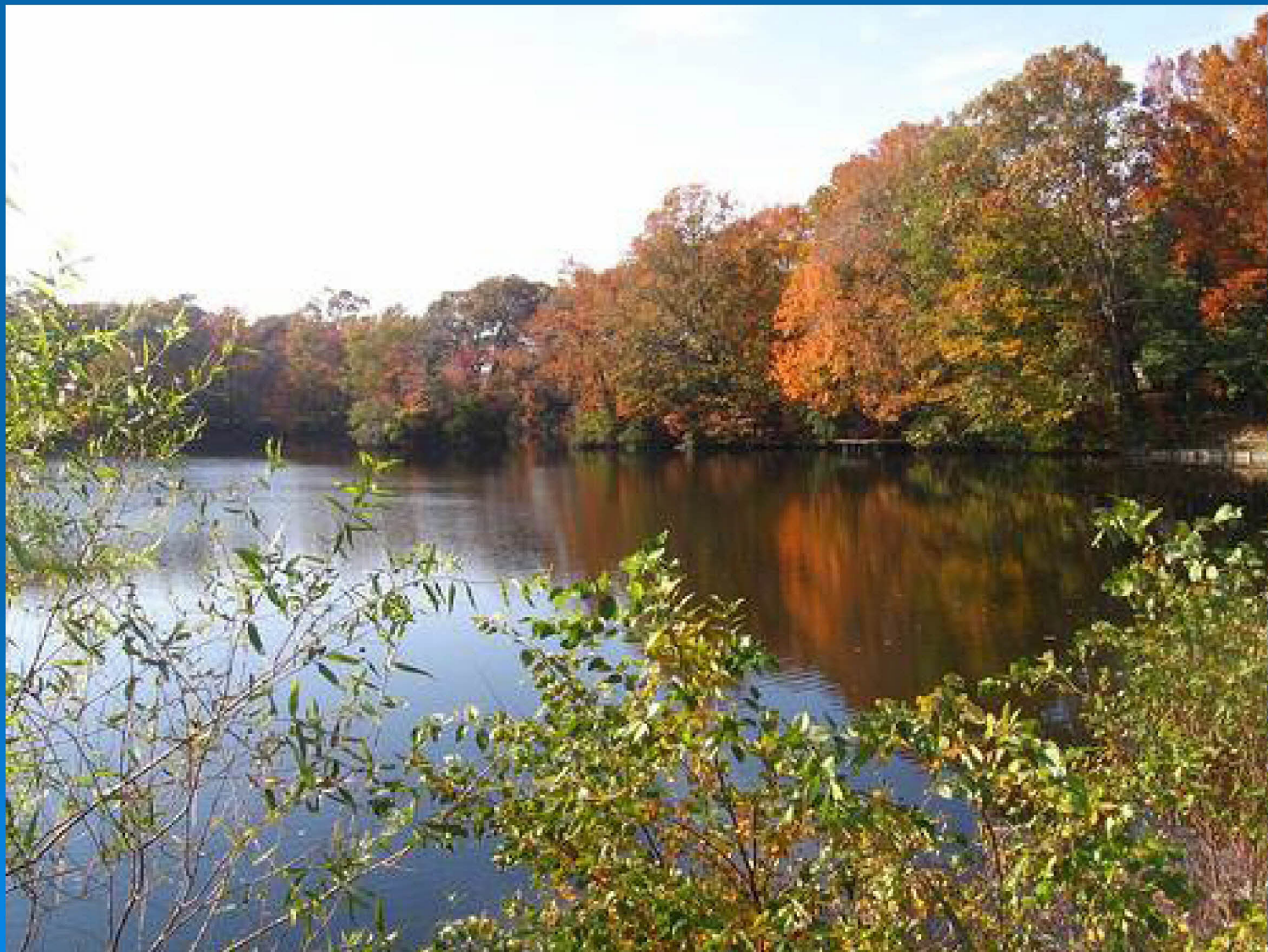


# TMDL is a “pollution diet”

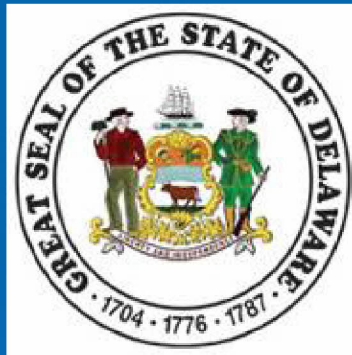




# For your **streams, creeks and rivers**

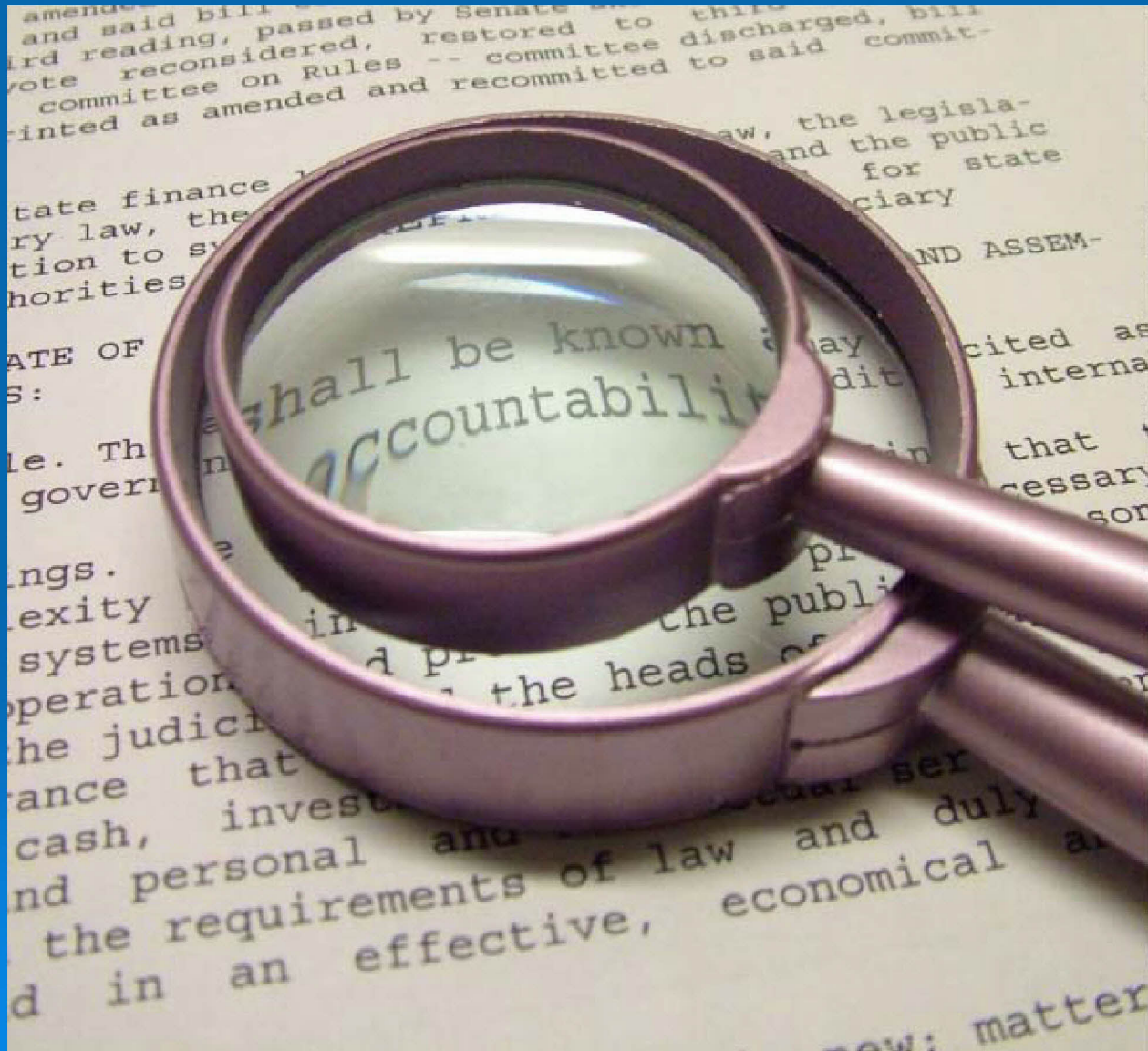


# Blend of state actions and federal measures





# Accountability for results



# Task **not easy** but essential





# **What is a TMDL?**

## **And Why Does it Matter?**

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# **Clean Water Act** requires TMDL for waters that don't meet state standards





# **TMDL = Total Maximum Daily Load**

**Defines amount of pollution a water body can handle and be healthy**

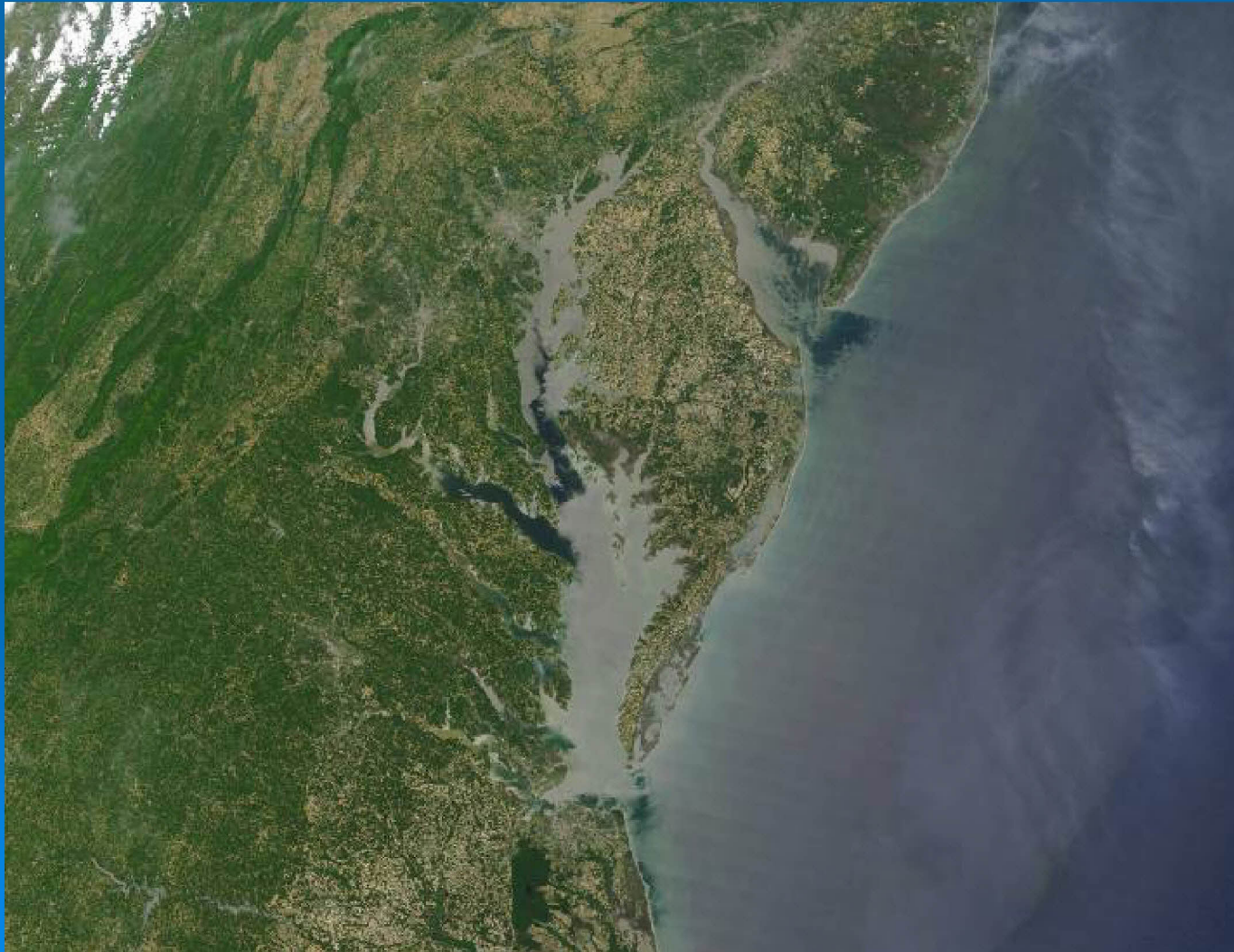


Bay and tributaries are **polluted**  
by nitrogen, phosphorus, sediment





**Rivers, streams, & creeks  
contribute to Bay, so included in TMDL**



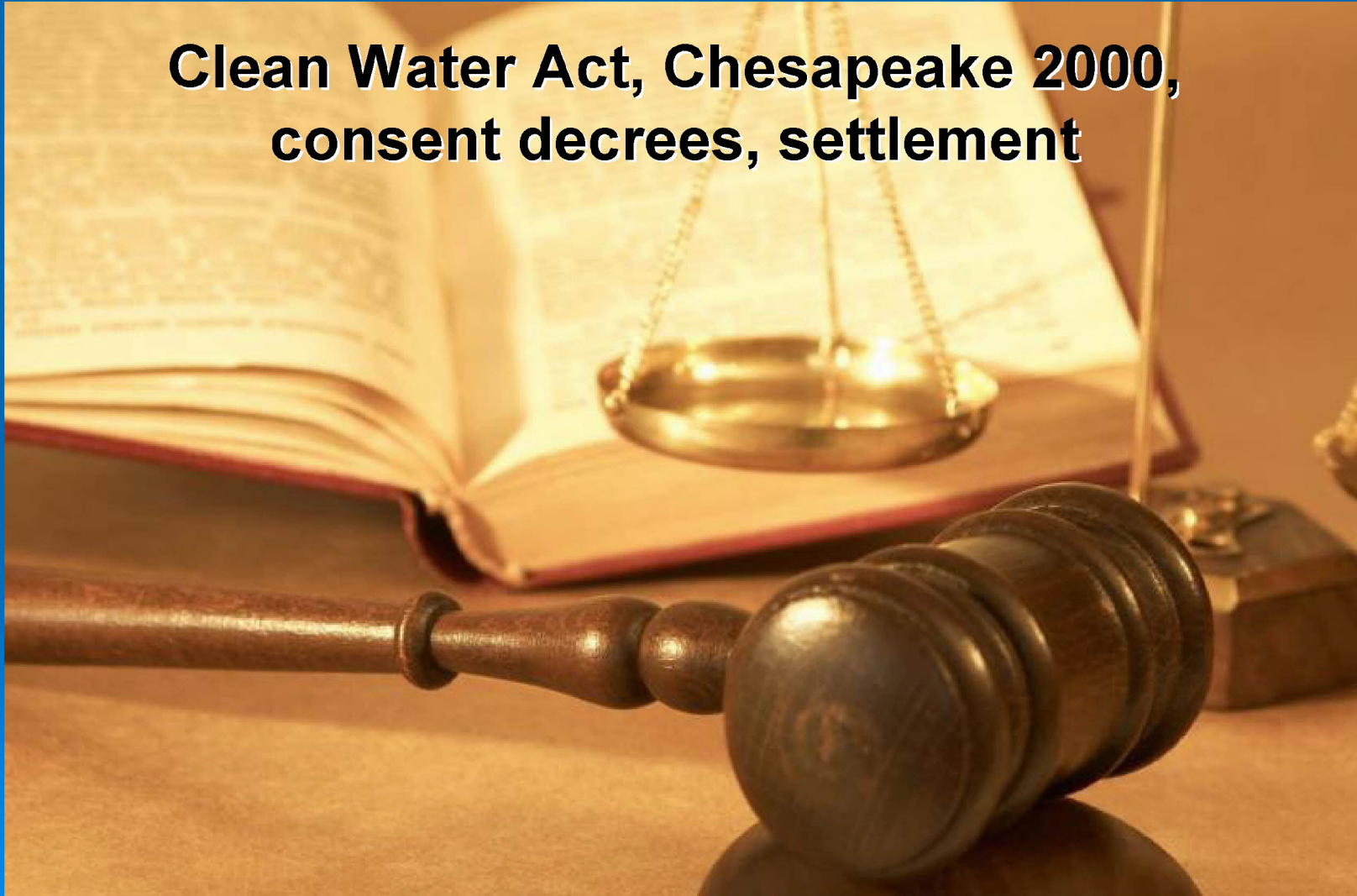




**Which way to the Bay???**

# Legal obligation to get it done

**Clean Water Act, Chesapeake 2000,  
consent decrees, settlement**



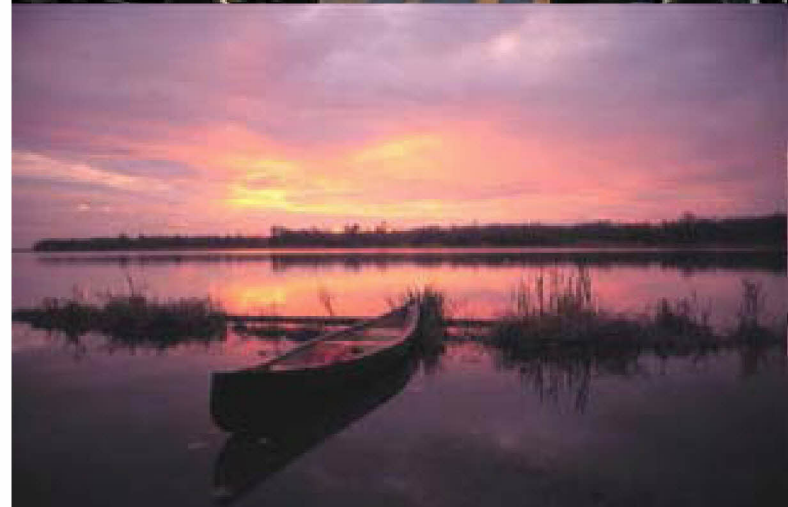
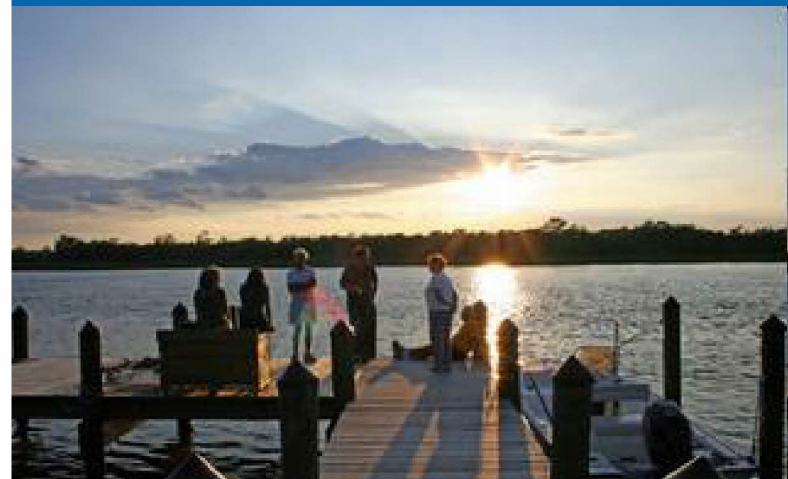


# Part of strategy to meet a Presidential Executive Order





# Clean water matters to **your community**





# Clean water matters to **your community**

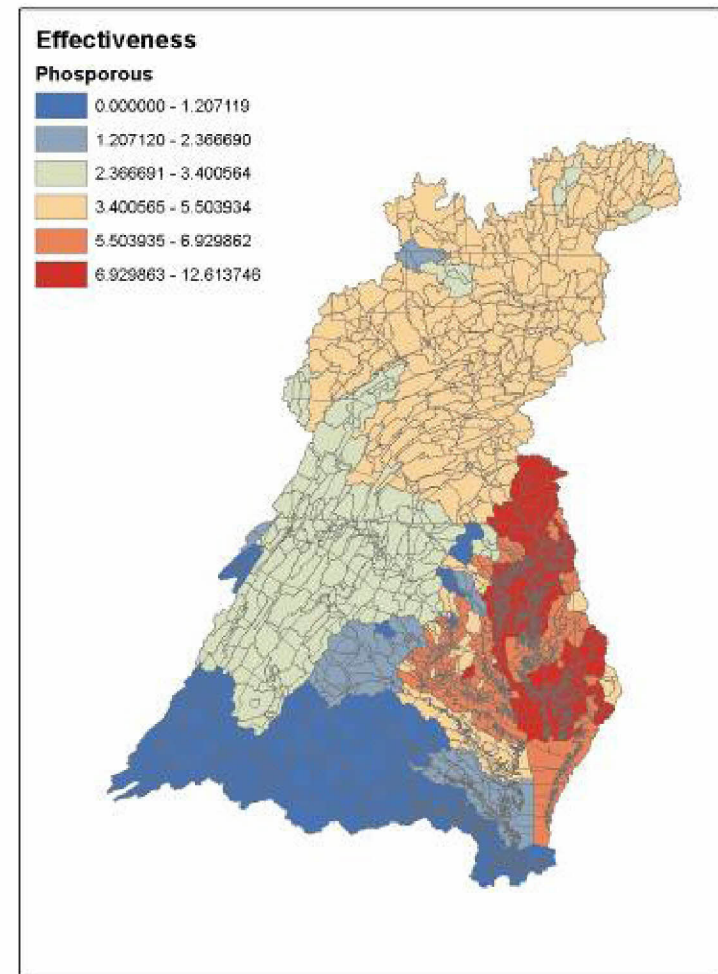
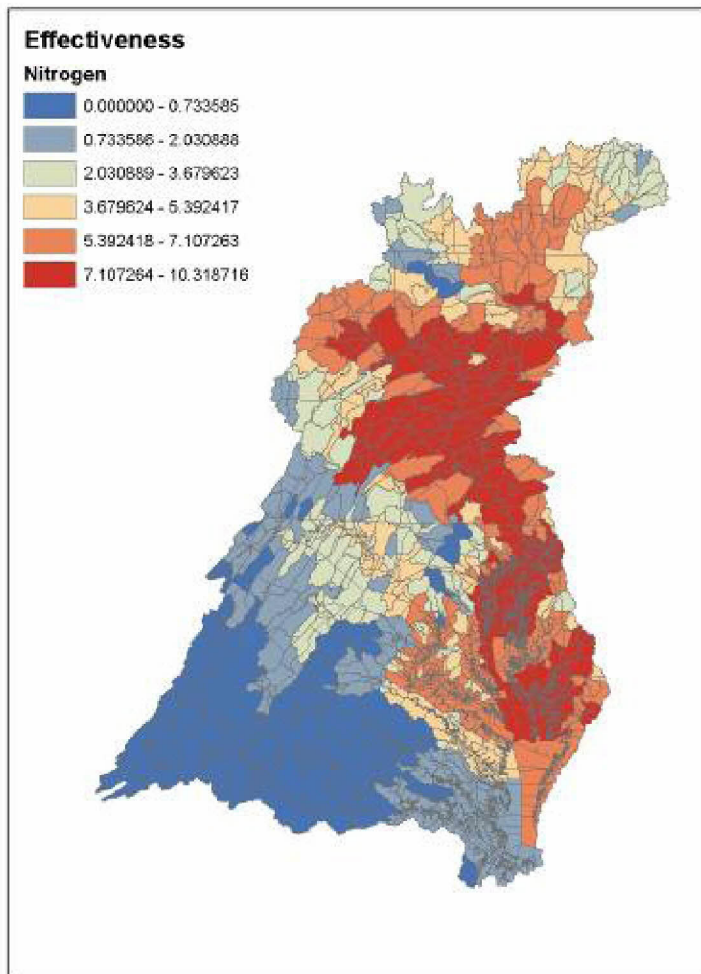




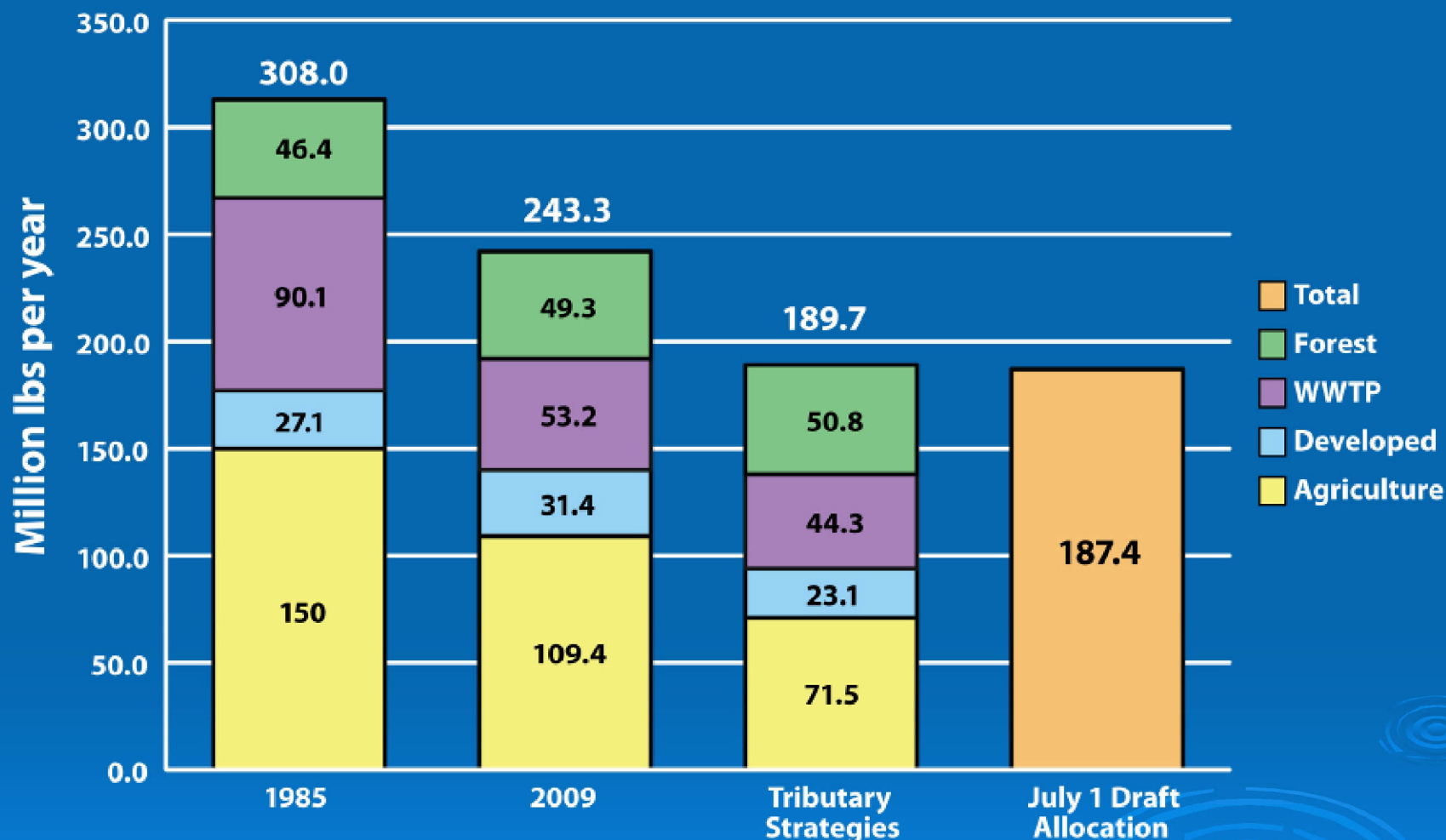
# Setting the Pollution Diet

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# Impact of Pollution



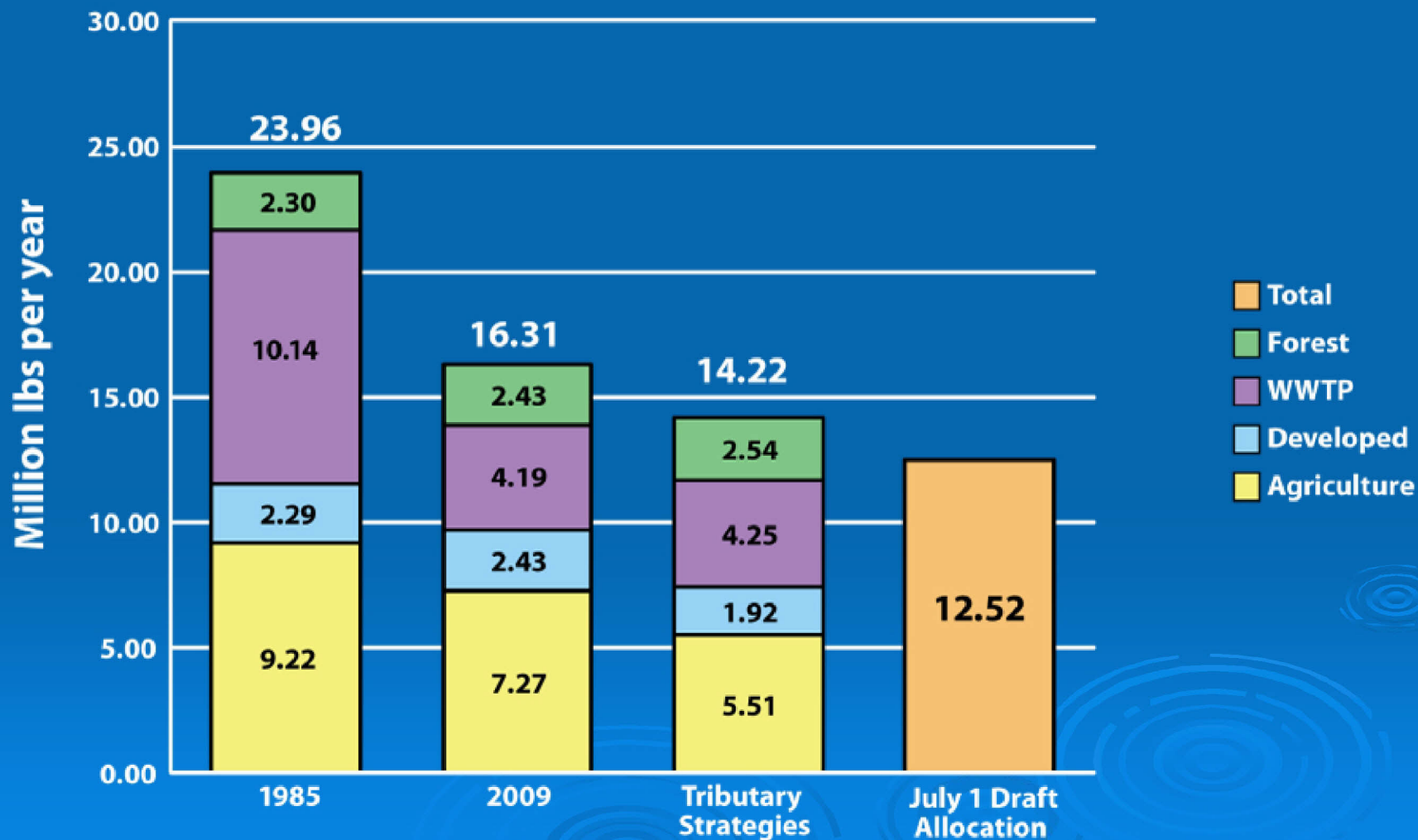
## Nitrogen Loads by Sector and Scenario—CBP Watershed Model P5.3



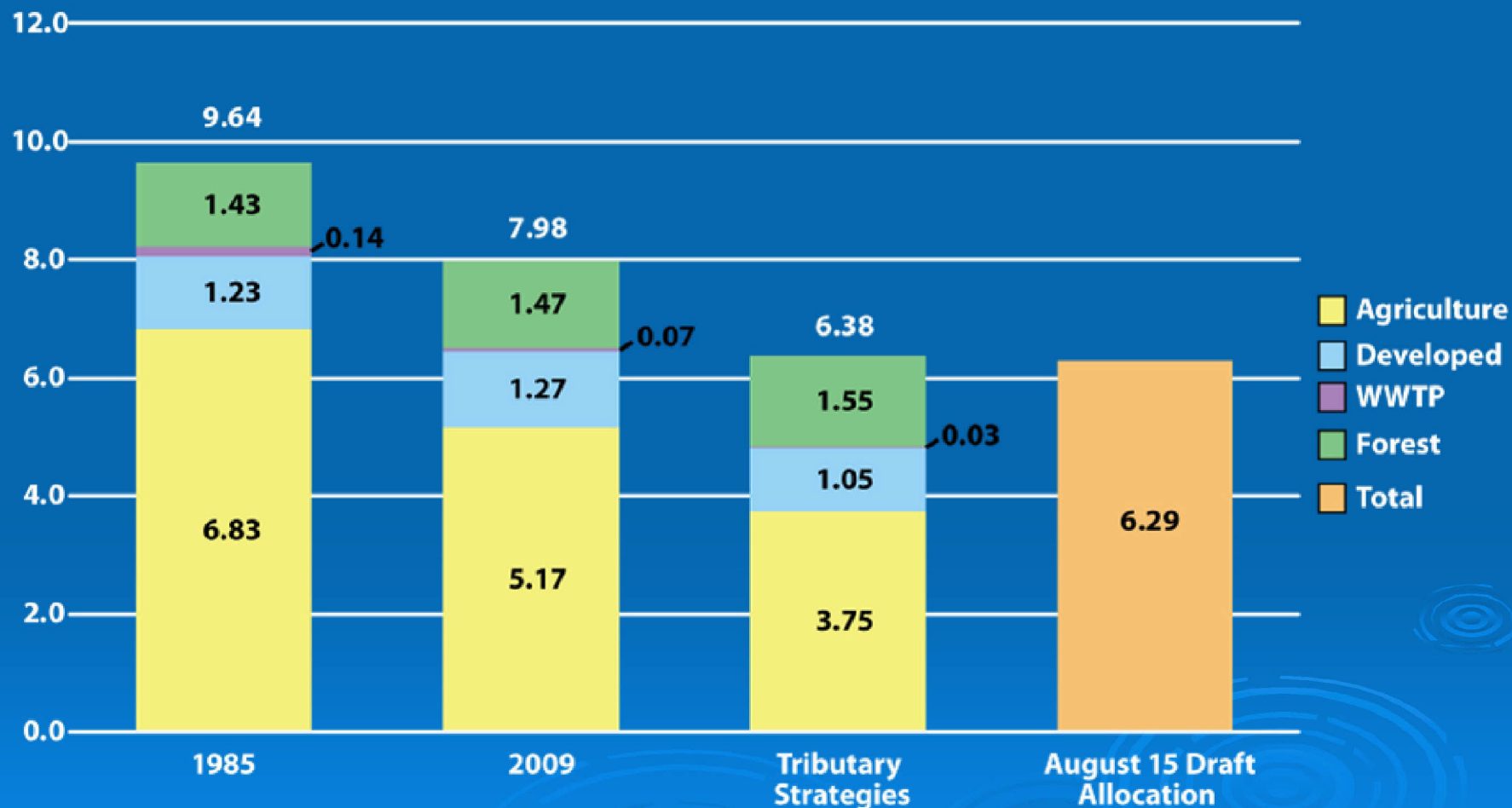
Draft allocation for atmospheric deposition is 15.7 million pounds, which will be achieved by federal air regulations through 2020.

# Setting the Diet

## Phosphorus Loads by Sector and Scenario—CBP Watershed Model P5.3

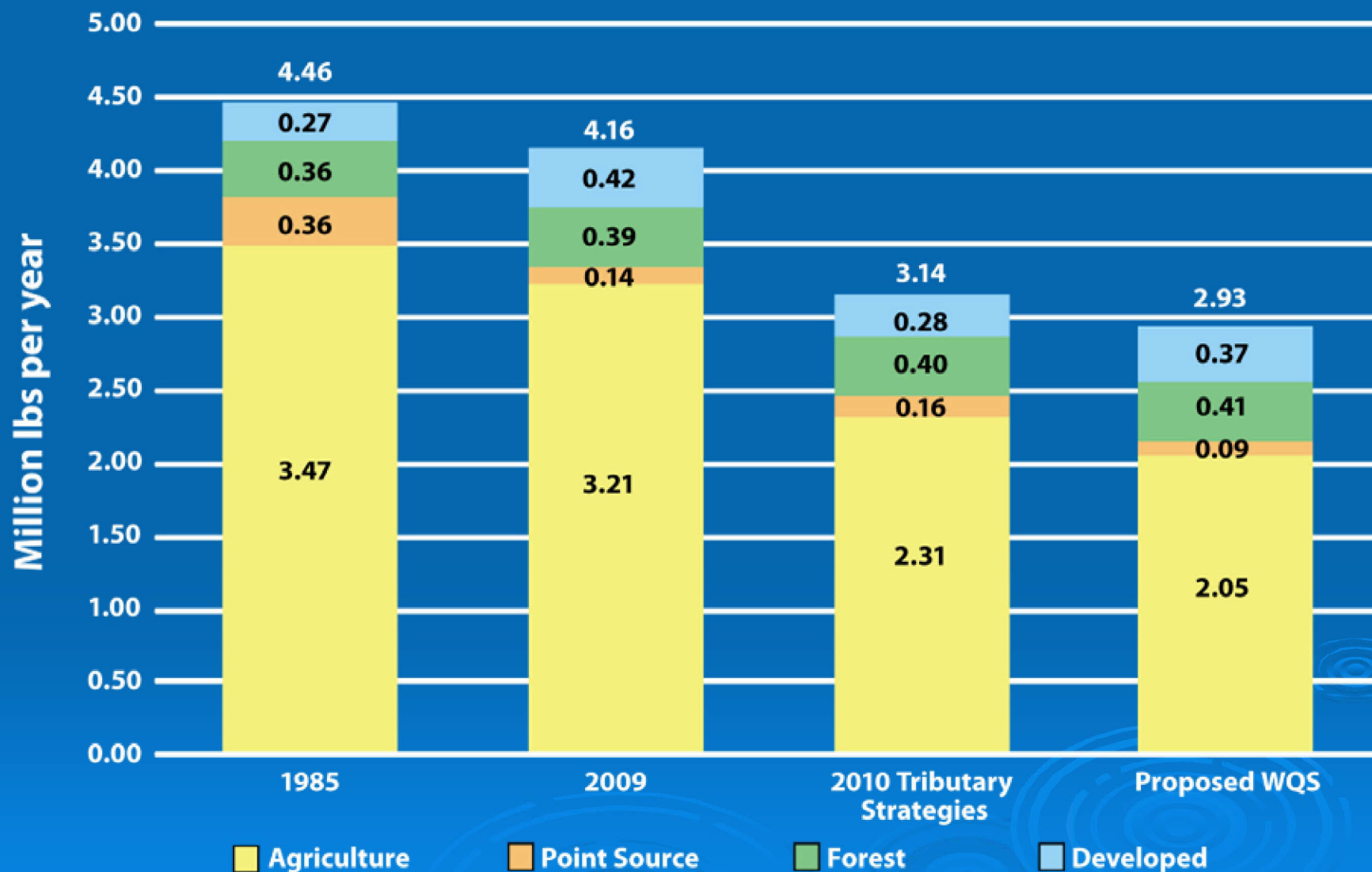


## Model Simulated Sediment Loads by Scenario Compared with the Draft Sediment Allocations (billions of pounds per year as TSS)

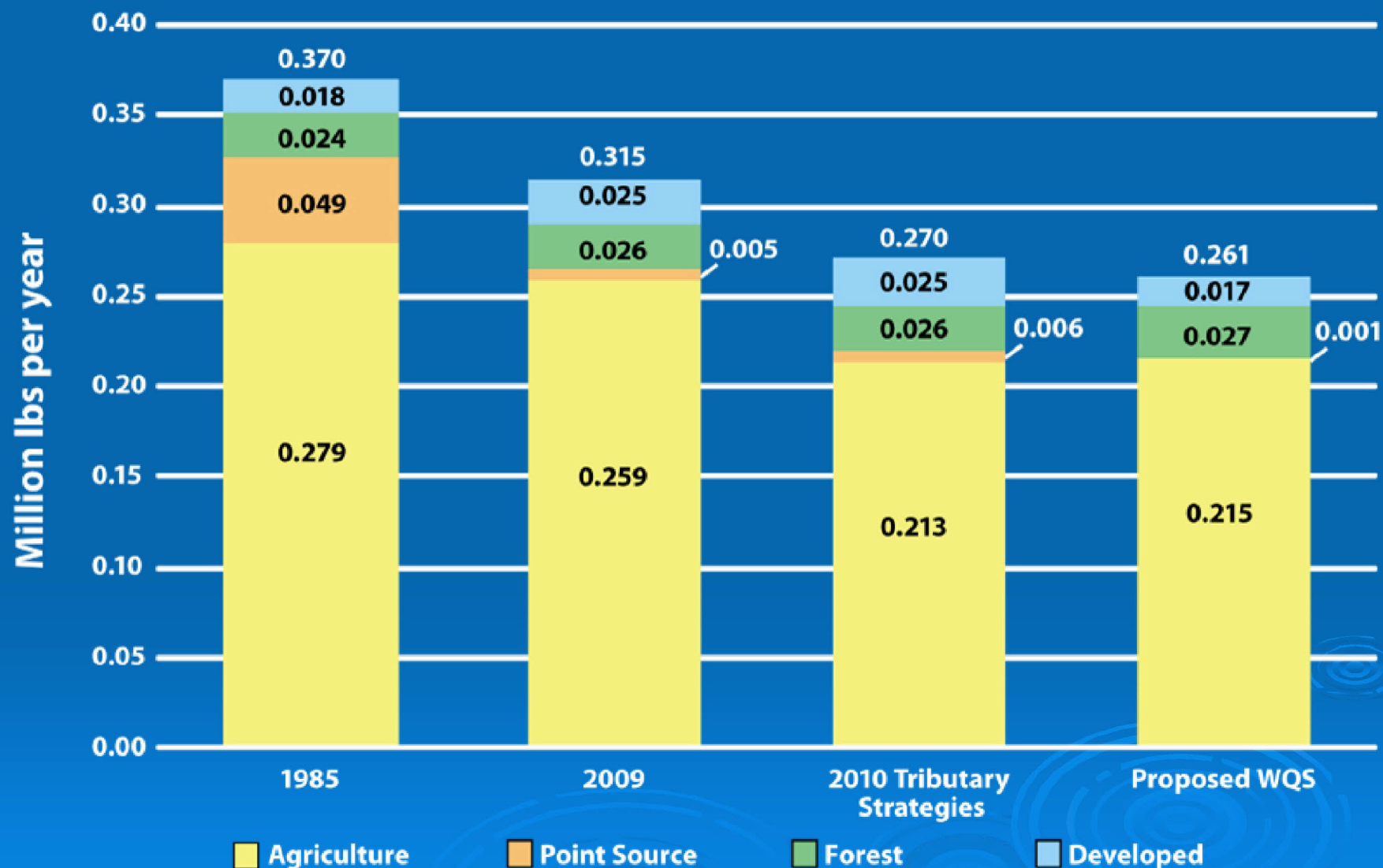




## DE Nitrogen Loads by Sector and Scenario—CBP Watershed Model P5.3

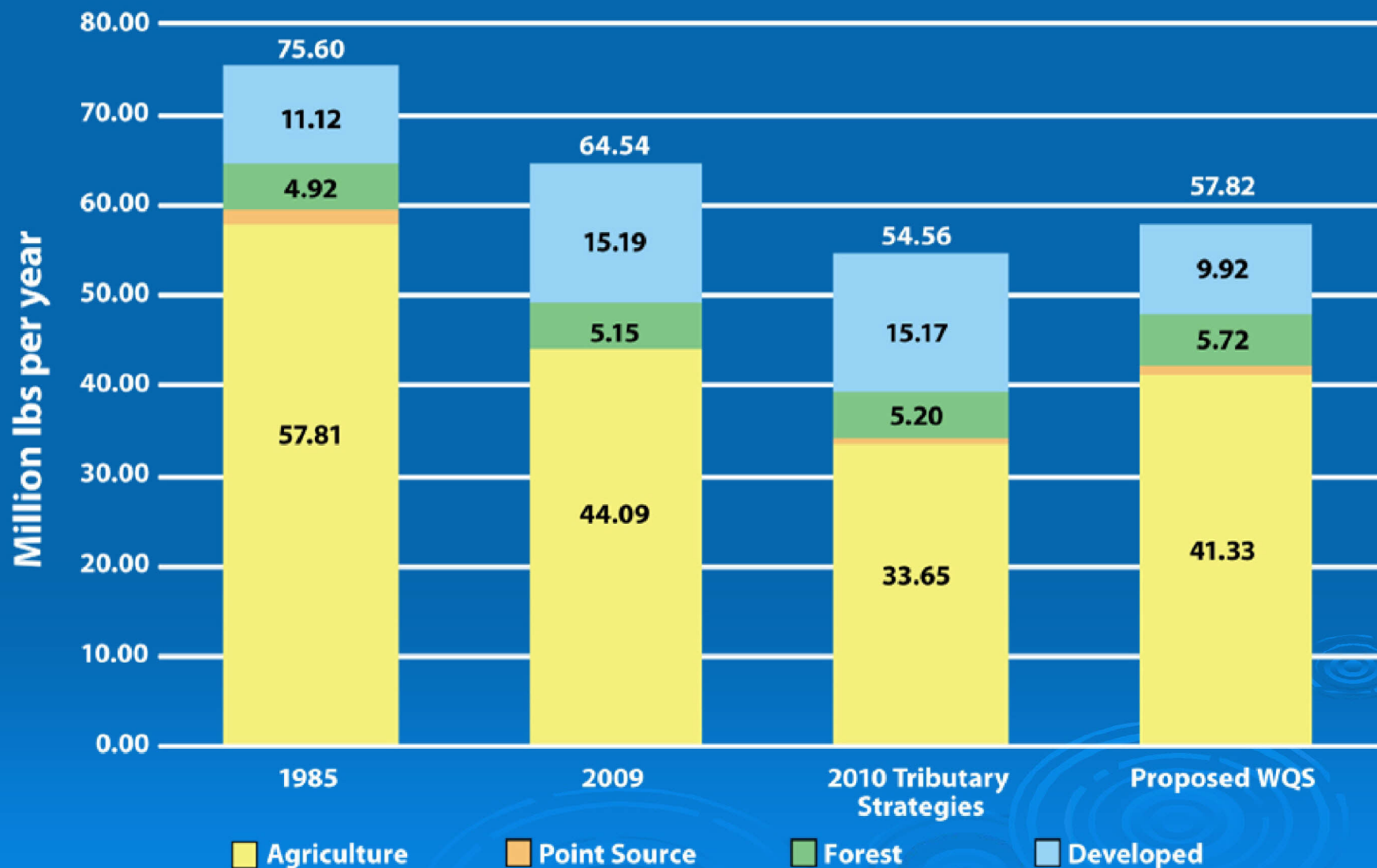


## DE Phosphorus Loads by Sector and Scenario—CBP Watershed Model P5.3





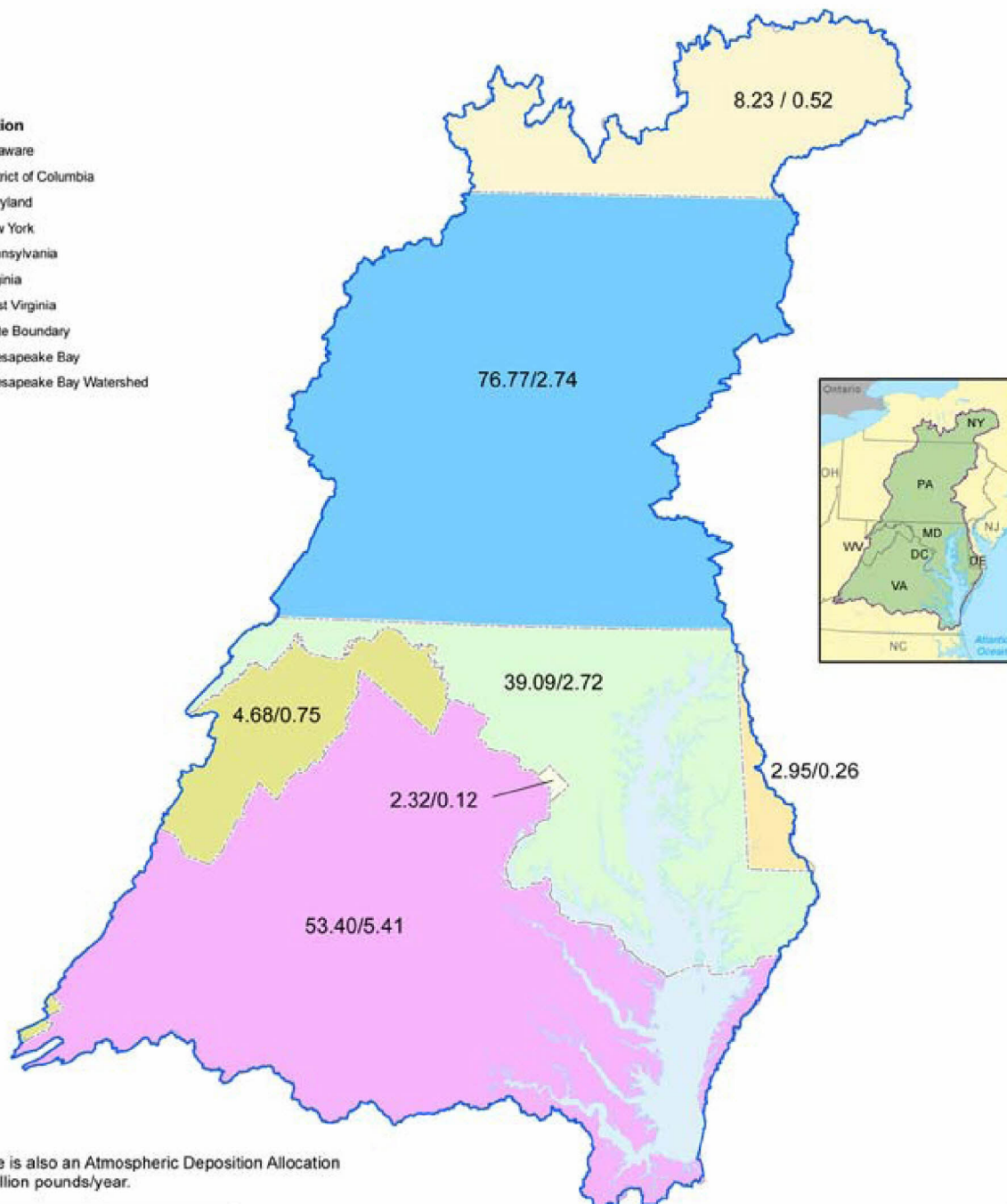
## DE Sediment Loads by Sector and Scenario—CBP Watershed Model P5.3



# Pollution Diet by State

**Jurisdiction**

- Delaware
- District of Columbia
- Maryland
- New York
- Pennsylvania
- Virginia
- West Virginia
- State Boundary
- Chesapeake Bay
- Chesapeake Bay Watershed



Note: There is also an Atmospheric Deposition Allocation of 15.70 million pounds/year.



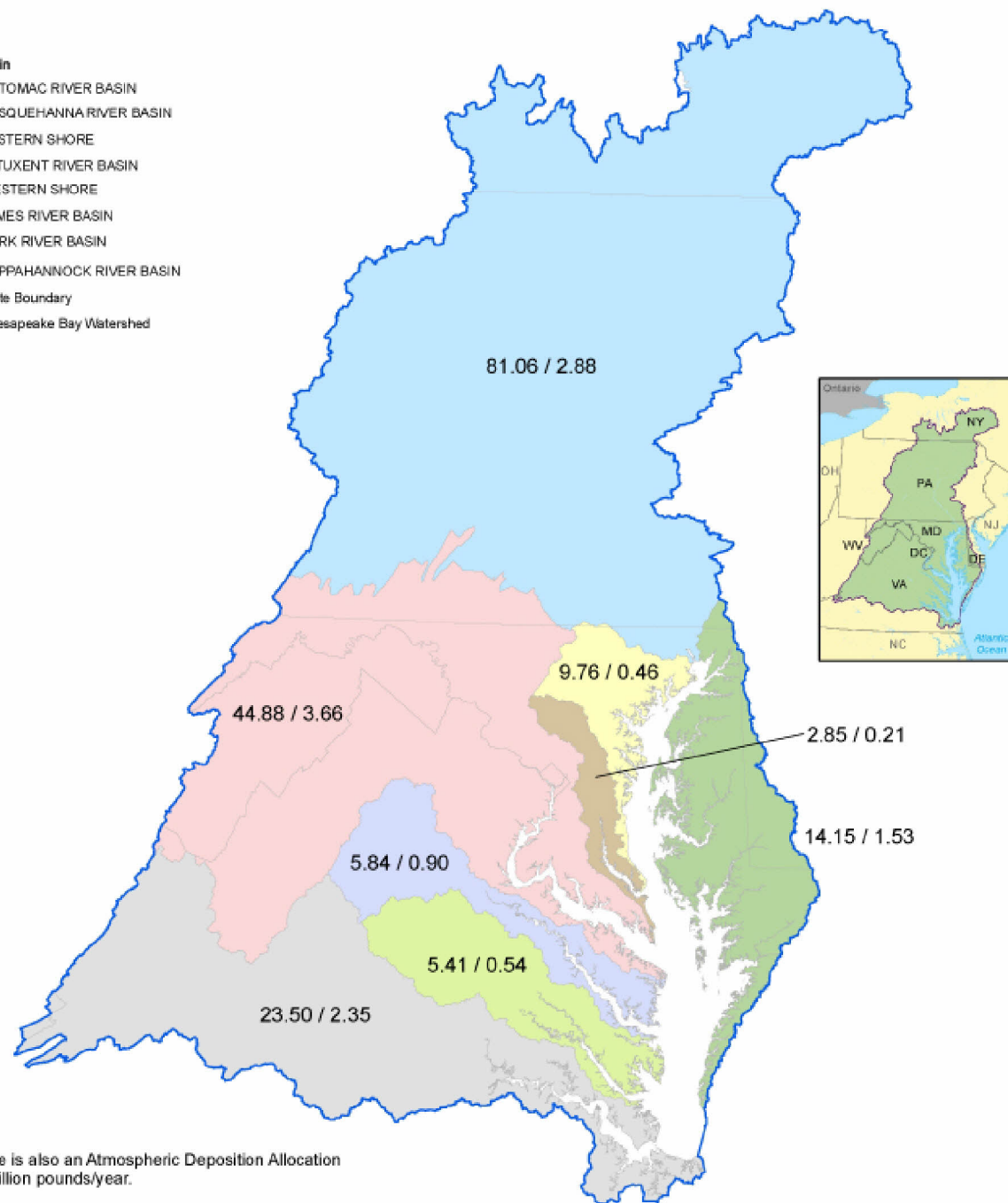
# Pollution Diet by River

**Major Basin**

- POTOMAC RIVER BASIN
- SUSQUEHANNA RIVER BASIN
- EASTERN SHORE
- PATUXENT RIVER BASIN
- WESTERN SHORE
- JAMES RIVER BASIN
- YORK RIVER BASIN
- RAPPAHANNOCK RIVER BASIN

----- State Boundary

Chesapeake Bay Watershed



Note: There is also an Atmospheric Deposition Allocation of 15.70 million pounds/year.

# TMDL Goals

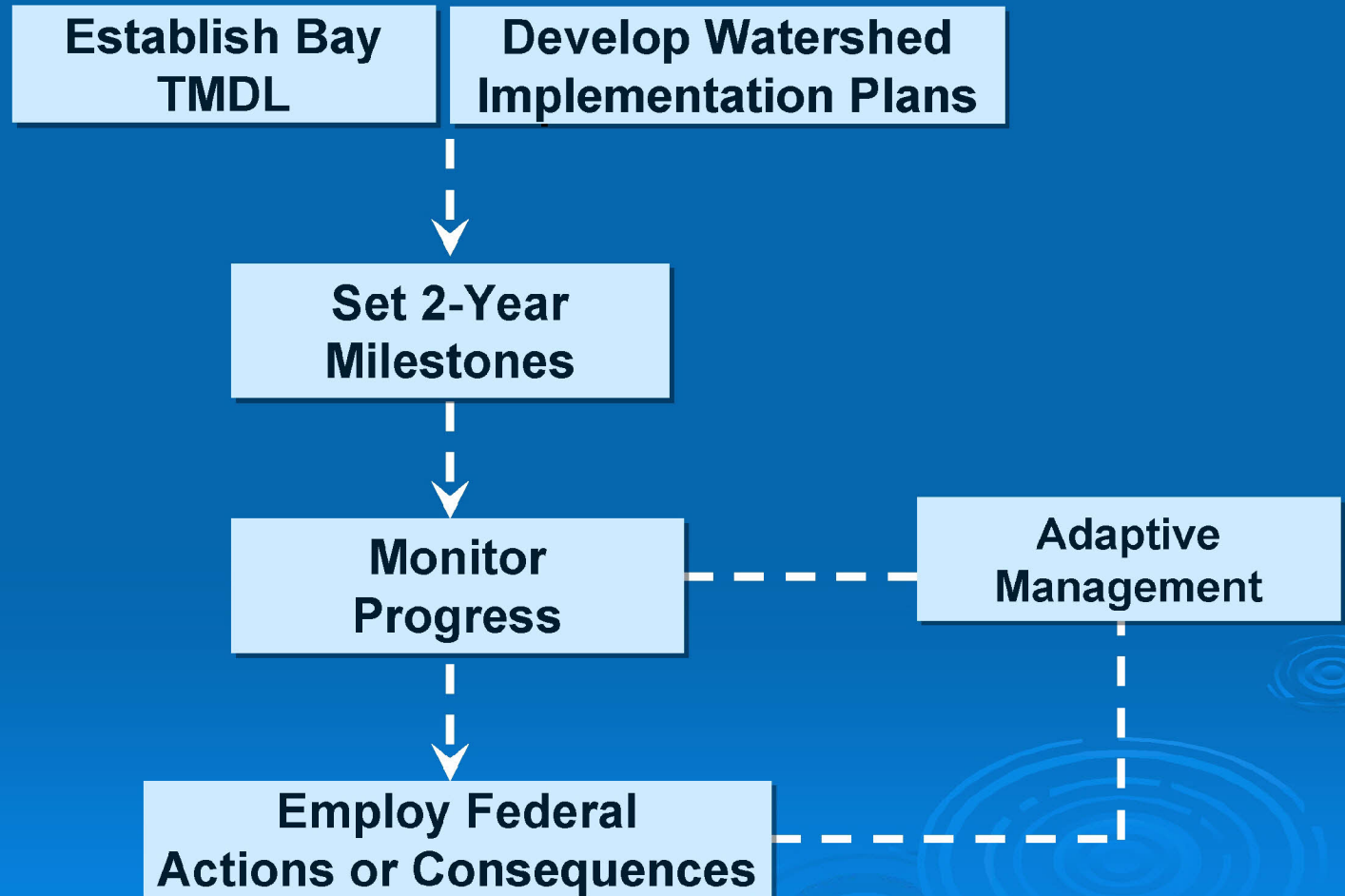
**2** year milestones

**60** percent by 2017

**100** percent by 2025



# Accountability for Results



# Meeting the Pollution Diet

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# **Watershed Implementation Plan**

**The how, when and where  
of attaining the TMDL diet**

# Overall Draft WIP Evaluation

- 7 jurisdictions provided Draft WIPs in early September
- WIPs must:
  - achieve pollution targets
  - provide reasonable assurance

# Do WIPs meet the allocations?

Jurisdiction	Nitrogen	Phosphorus	Sediment
DC			
DE			
MD			
NY			
PA			
VA			
WV			



# Draft Delaware WIP Evaluation

- Did not meet nitrogen (17 percent **over**)
- Did not meet phosphorus (8 percent **over**)
- Met sediment (20 percent **under**)

# Overall Draft WIP Evaluation

**None of the WIPs provided adequate assurance**

- Inadequate strategy for filling program gaps
- Limited enforceability/accountability
- Few dates for key actions

# Federal Backstops

- All jurisdictions require some level of backstop to:
  - Meet the pollution allocations
  - Provide a high level of assurance
- Backstop allocations focus on federal authority
  - Additional reductions from regulated point sources (wastewater treatment plants, CAFO, MS4s)
  - Finer scale allocations for headwater states



# Backstops by Jurisdiction

- Maryland, DC – Minor Backstop
- Virginia – Moderate Backstop
- Delaware, Pennsylvania, New York and West Virginia – High Backstop
- Headwater States (PA, NY, WV)
  - EPA assigning finer scale wasteload and load allocations

# Federal Backstops

## ➤ Backstop allocation adjustments

- **Minor** - adjust load allocations to equal targets
- **Moderate** -
  - Stronger CAFO/MS4 requirements
  - Significant WWTPs: N @ 4 mg/l, P @ 0.3 mg/l
- **High Backstop** –
  - Stronger CAFO/MS4 requirements
  - Significant WWTPs: N @ 3 mg/l, P @ 0.1 mg/l

# Draft Delaware WIP Evaluation

## For Delaware: **high backstop**

- Need further explanation of how practices will be in place by 2017 that would achieve 60% of the necessary reductions
- Many of the gap filling strategies for reaching agriculture targets are “TBD” and lack of assurance for compliance and enforcement
- Abdicates to state and federal stormwater rulemakings
- Offset program will need to include clear baseline definition and assurances of accountability and enforceability



# Draft Delaware WIP Evaluation

## For Delaware: **high backstop**

- Wastewater facilities: limit of technology (3 mg/L TN and .1 mg/L TP) and design flow
- MS4s: 50% of urban MS4 lands meet aggressive performance standard through retrofit/ redevelopment; 50% of unregulated land treated as regulated
- Construction: Erosion and sediment control on all lands subject to Construction General Permit
- CAFO production areas: Waste management, barnyard runoff control, mortality composting. Precision feed management for all animals. Same standards apply to AFOs not subject to CAFO permits EXCEPT no feed management on dairies; designation as necessary
- Additional adjustments to agriculture nonpoint sources as necessary to exactly nutrient and sediment allocations

# In Summary

- Hybrid TMDL is blend of jurisdiction WIPs and EPA backstop allocations
- Final WIPs need to address deficiencies
- EPA prefers to use jurisdiction WIPs and not backstop in final TMDL

# Opportunities for Improvement

- Jurisdictions can enhance their WIP submissions by the November 29 deadline
  - EPA will engage jurisdictions in discussions
  - EPA will evaluate the final WIPs
  - Final TMDL will be informed by final WIPs



# Next Steps

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# Next Steps

- Hold 18 public meetings in six states, D.C.
- Public comment period until November 8
- States, D.C. submit final WIPs on November 29
- TMDL will be established by December 31

# Submit Your Comments

- Public comment period until **November 8**
  - **Electronically**, visit:  
[www.regulations.gov](http://www.regulations.gov)  
Docket ID No. EPA-R03-OW-2010-0736
  - **In writing**, mail to:  
Water Docket, EPA, Mailcode: 2822T  
1200 Pennsylvania Ave., NW.,  
Washington, D.C., 20460.
  - **By hand**, drop off from 8:30 a.m. - 4:30 p.m.:  
EPA Docket Center Public Reading Room,  
EPA Headquarters West, Room 3340,  
1301 Constitution Ave., NW, Washington, D.C.





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